

Remarks

This is responsive to the Office Action mailed February 7, 2007. The remarks are proper, do not introduce new matter, and are not narrowing of claim scope in any way.

Rejection Under Section 102

Claims 30-34, 36-42, 44-46, 55, 56, and 58 stand rejected as being anticipated by US 2003/0041201 to Rauscher ("Rauscher '201" now US 6,874,100). This rejection is respectfully traversed.

claim 30 - common enclosure

Applicant has previously shown that Rauscher '201 discloses separate enclosures for the data storage devices and controllers that neither discloses nor necessarily requires the claimed *common enclosure* (see Applicant's Response of 1/16/2007, ppg. 15-17). The Examiner did not rebut Applicant's evidentiary showing. Instead, the Examiner alludes to Applicant's argument as being unsubstantiated lexicography:

Even if there were such a thing as commonly understood "plain meaning", Applicant, by acting as his own lexicographer has foregone any such benefit (see Applicant's specification). Examiner's interpretation, further, is based on such "plain meaning" (see any dictionary) and applicant's own specification. (Office Action, ppg. 4-5)

It is wrong to accuse Applicant of being its own lexicographer, because Applicant is arguing that *common enclosure* should be construed in accordance with its plain meaning consistent with the specification. If Applicant was attempting to be its own lexicographer it would be arguing against the presumption that the claim should be construed that way.

The words of a claim must be given their plain meaning consistent with the specification. *In re Zletz*, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989); MPEP 2111.01(I) The plain meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention. *Phillips v. AWH Corp.*, 75 USPQ2d 1321, 1326 (Fed. Cir. 2005) (*en banc*); MPEP 2111.01(III).

Applicant has previously argued that the plain meaning of *common enclosure* to the skilled artisan in the context of this claim is that the data storage devices and the controllers are in the same enclosure; in other words they are self-contained. This plain meaning is consistent with what the specification discloses:

Embodiments of the present invention can be advantageously employed with a multiple disc assembly (MDA) that comprises a plurality of storage devices and that is inserted into or moved from a cabinet or other fixture as a single unit. The MDA may contain storage devices, may contain storage devices and fabrics, may contain storage devices, fabrics and disc controllers, or may contain data storage devices, fabrics, disc controllers and interface controllers.
(specification, pg. 16 lines 9-14, emphasis added)

Therefore, Applicant reiterates that the Examiner's claim construction is unreasonably broad because it ignores the plain meaning of the claim phrase *common enclosure*, thereby effectively ignoring explicitly recited claim language. *In re Morris* 43 USPQ2d 1753 (Fed. Cir. 1997)

Applicant further notes that the Examiner appears to be making a written description argument in a misplaced attempt at supporting the anticipation rejection:

Applicant has not provided a limiting definition, but only something that "may" apply (see Applicant's liberal use of the words "may" and "not limited" throughout the specification.

(Office Action pg. 5)

Again, Applicant has previously argued that the Examiner is obliged to construe the phrase *common enclosure* in accordance with its plain meaning consistent with the specification in accordance with the presumption in law. The Examiner's argument that Applicant has not provided a limiting definition is unresponsive.

To substantiate the 102 rejection, the Examiner must show evidence why the broadest reasonable construction consistent with the specification of the phrase *common enclosure* allegedly means the opposite "separate enclosures" that Rauscher '201 discloses. There being no such evidence in the record, both the first and second examinations resulting in these rejections are incomplete with regard to the Examiner's obligation to consider the patentability of the invention as claimed. 37 CFR 1.104(a)(1). Also, because the rejection is based on ignoring an explicitly recited feature and mischaracterizing the cited reference, the Examiner does not provide a reason for the rejection that is useful in aiding Applicant to judge the propriety of continuing the prosecution. 37 CFR 1.104(a)(2)

The Examiner has failed to make the requisite prima facie case of anticipation by not substantiating evidence in the record that the cited reference identically discloses all the features recited by the language of claim 30. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989); MPEP 2131. Therefore, the final rejection of claim 30 is premature, meaning the Examiner has closed the merits but the case is not in condition for appeal. Reconsideration and withdrawal of the rejection of claim 30 and the claims depending therefrom are respectfully requested.

Claims 30, 38, 55, 56, and 58 - switchable fabric

Applicant has previously shown that Rauscher '201 discloses single signal path connectors between the data storage devices and controllers that neither discloses nor necessarily requires the claimed *switchable fabric* (see Applicant's Response of 1/16/2007, ppg. 17-21). The Examiner did not rebut Applicant's evidentiary showing. Instead, the Examiner again alluded to Applicant's argument as being unsubstantiated lexicography (citing excerpt above from ppg. 4-5 of Office Action). For the same reasons set forth above, not repeated to minimize redundancy, it is wrong to accuse Applicant of being its own lexicographer, and the Examiner is obliged to construe the phrase *switchable fabric* in terms of what plain meaning the phrase would have to a skilled artisan consistent with the specification. *In re Zletz; Phillips v. AWH*; MPEP 2111.01(I and III).

Applicant has previously argued that the plain meaning of *switchable fabric* to the skilled artisan in the context of this claim means configurable multi-path signal paths between devices. This plain meaning is consistent with what the specification discloses:

FIG. 10 depicts a multi-path redundant storage system. System 1000 comprises host 1002, host bus "A" 1004, host bus "B" 1006, disc controller "A" 1008, disc controller "B" 1010, fabric bus "A" 1012, fabric bus "B" 1014, fabric "A" 1016, fabric "B" 1018, and disc drives 1020-1028...Further, fabric "A" 1016 and fabric "B" 1018 may be controlled and configured wholly or in part by disc controller "A" 1008 and/or disc controller "B" 1010. (specification pg. 12 line 29- pg. 13 line 14, emphasis added)

The term fabric shall refer to any type of device that can provide a configurable connection between data storage devices and disc controllers and shall include fibre channel fabrics, switches, cross-point switches, multiplexers, port bypass controllers and other devices. (specification pg. 16 lines 3-6, emphasis added)

Applicant reiterates that the Examiner's claim construction is unreasonably broad

because it ignores the plain meaning of *switchable fabric*, thereby effectively ignoring explicitly recited claim language. *In re Morris*.

To substantiate the rejection, the Examiner must show evidence why the broadest reasonable construction consistent with the specification of the phrase *switchable fabric* means the unswitchable connectors that Rauscher '201 discloses. There being no such evidence in the record, the examinations resulting in the first and second rejections are incomplete with regard to the Examiner's obligation to consider the patentability of the invention as claimed. 37 CFR 1.104(a)(1). Also, because the rejections are based on ignoring an explicitly recited feature and mischaracterizing the cited reference, the Examiner does not provide a reason for the rejection that is useful in aiding Applicant to judge the propriety of continuing the prosecution. 37 CFR 1.104(a)(2)

The Examiner has failed to make the requisite prima facie case of anticipation by not substantiating evidence in the record that the cited reference identically discloses all the features recited by the language of claim 30, 38, 55, 56, and 58. *Richardson v. Suzuki Motor Co.*; MPEP 2131. Therefore, the final rejection of claims 30, 38, 55, 56, and 58 is premature, meaning the Examiner has closed the merits but the case is not in condition for appeal. Reconsideration and withdrawal of the rejection of claims 30, 38, 55, 56, and 58 and the claims depending therefrom are respectfully requested.

Rejection Under Section 102

Claims 38, 39, 41, 47-49, 55, 56, 58, and 59 stand rejected as being anticipated by Steinmetz '260. This rejection is respectfully traversed.

Claims 38, 55, 56, and 58 - switchable fabric

Applicant has previously shown that Steinmetz '260 discloses FC-AL topology and serial point-to-point links between the controller and data storage devices that neither discloses nor necessarily requires the claimed *switchable fabric*. (see Applicant's Response of 1/16/2007, pg. 23). The Examiner did not rebut Applicant's evidentiary showing. Instead, the Examiner again alluded to Applicant's argument as being unsubstantiated lexicography (citing excerpt above from ppg. 4-5 of Office Action). For the same reasons set forth above, not repeated to minimize redundancy, it is wrong to accuse Applicant of being its own lexicographer, and the Examiner is obliged to construe the phrase *switchable fabric* in the context of providing a connection to data storage devices and in terms of what plain meaning the phrase would have to a skilled artisan consistent with the specification. *In re Zletz; Phillips v. AWH*; MPEP 2111.01(I and III).

Applicant reiterates that the Examiner's claim construction is unreasonably broad because it ignores the plain meaning of *switchable fabric*, thereby effectively ignoring explicitly recited claim language. *In re Morris*.

To substantiate the rejection, the Examiner must show evidence why the broadest reasonable construction consistent with the specification of the phrase *switchable fabric* means the unswitchable connectors to the data storage devices 1022-1025 that Steinmetz '260 discloses. There being no such evidence in the record, the examinations resulting in the first and second rejections are incomplete with regard to the Examiner's obligation to consider the patentability of the invention as claimed. 37 CFR 1.104(a)(1). Also, because the rejections are based on ignoring an explicitly recited feature and mischaracterizing the cited reference, the Examiner does not provide a reason for the rejection that is useful in aiding Applicant to judge the propriety of continuing the prosecution. 37 CFR 1.104(a)(2)

The Examiner has failed to make the requisite prima facie case of anticipation by not substantiating evidence in the record that the cited reference identically discloses all the features recited by the language of claims 38, 55, 56, and 58. *Richardson v. Suzuki Motor Co.*; MPEP 2131. Therefore, the final rejection of claims 38, 55, 56, and 58 is premature, meaning the Examiner has closed the merits but the case is not in condition for appeal. Reconsideration and withdrawal of the rejection of claims 38, 55, 56, and 58 and the claims depending therefrom are respectfully requested.

Rejection Under Section 102

Claim 53 stands rejected as being anticipated by US 20030126315 to Tan (now US 7,111,084). This rejection is respectfully traversed.

First, the final rejection of claim 53 is premature because it was not amended and the final rejection is based on a newly cited reference. A second or any subsequent action on the merits will not be made final if it includes a rejection on newly cited art of any claim not amended by applicant. MPEP 706.07(a), emphasis added. Reconsideration and withdrawal of the rejection of claim 53 are respectfully requested.

Notwithstanding the premature rejection, Tan '315 does not identically disclose the *means for controlling* as claimed. Claim 53 is properly construed in accordance with 35 U.S.C. §112, sixth paragraph. As set forth in the discussions above, the disclosed structure requires a configurable multi-path signal path between each controller and the data storage devices. Contrarily, Tan '315 (particularly in FIGS. 2 and 3 referenced by the Examiner) discloses single path point-to-point serial links between each controller and the data storage devices (see Tan '315 para. [0031] lines 10-12). The Examiner has failed to substantiate a

prima facie case of anticipation by not showing evidence that the structure of Tan '315, single signal paths, is equivalent to the redundant multi-path signal links of the disclosed structure.

Accordingly, the examination resulting in the first and second rejections is incomplete with regard to the Examiner's obligation to consider the patentability of the invention as claimed. 37 CFR 1.104(a)(1). Also, because the rejection does not substantiate a *prima facie* case in accordance with Section 112 paragraph six, the Examiner does not provide a reason for the rejection that is useful in aiding Applicant to judge the propriety of continuing the prosecution. 37 CFR 1.104(a)(2)

Reconsideration and withdrawal of the rejection of claim 53 are respectfully requested.

Section 102 Rejection

Claim 54 stands rejected as being unpatentable over DeKoning '942. This rejection is respectfully traversed.

DeKoning '942 does not identically disclose *a plurality of data storage locations that are accessible to each of a plurality of controllers via circuitry that defines at least two independent signal paths between each location and each controller.*

Rather, DeKoning '942 (particularly in FIG. 3 referenced by the Examiner) discloses two signal paths between each disk array 124, 126 and two different controllers 116, 118, respectively. That is, DeKoning '942 discloses redundant RAID controllers 116, 118 behind redundant enterprise controllers 308, 310, with each RAID controller 116, 118 having an established communication path with all the disk arrays 124, 126 in the respective storage

array 108. DeKoning '942 does not disclose *two independent signal paths between each location and each controller* as claimed.

The Examiner's claim construction is unreasonably broad because it ignores the plain meaning of *circuitry that defines at least two independent signal paths between each location and each controller* that is consistent with its usage in the specification, thereby effectively ignoring explicitly recited claim language. *In re Morris*

Therefore, the examination resulting in this rejection is incomplete with regard to the Examiner's obligation to consider the patentability of the invention as claimed. 37 CFR 1.104(a)(1). Also, because the rejection is based on ignoring an explicitly recited feature and mischaracterizing the cited reference, the Examiner does not provide a reason for the rejection that is useful in aiding Applicant to judge the propriety of continuing the prosecution. 37 CFR 1.104(a)(2)

The Examiner has failed to make the requisite prima facie case of anticipation by not substantiating evidence in the record that the cited reference identically discloses all the features recited by the language of claim 54.

Reconsideration and withdrawal of the rejection of claim 54 are respectfully requested.

Rejection Under Section 103

Claims 35 and 43 stand rejected as being unpatentable over Rauscher '201 in view of Grieshaber '106. Applicant respectfully traverses this rejection.

These claims are allowable because Grieshaber '106 fails to cure the deficiencies of Rauscher '201 detailed above, and because they depend from an allowable independent claim, for reasons above, and recite additional limitations thereto.

Reconsideration and withdrawal of the rejection of claims 35 and 43 are respectfully requested.

Rejection Under Section 103

Claims 50-52, and 57 stand rejected as being unpatentable over Steinmetz '260 in view of Pignolet '828. Applicant respectfully traverses this rejection.

Claims 50-52 are allowable because Pignolet '828 fails to cure the deficiencies of Steinmetz '260 that are detailed above, and because they depend from an allowable independent claim, for reasons above, and recite additional limitations thereto.

Reconsideration and withdrawal of the rejection of claims 50-52 are respectfully requested.

As for claim 57, Applicant reiterates that the Examiner has failed to substantiate a prima facie case of obviousness because Steinmetz '260 and Pignolet '828, neither alone nor together, teach or suggest *dual ported storage controllers with a first port connected to a first switchable fabric and a second port connected to a second switchable fabric, the fabrics, in turn, connected to a plurality of data storage devices* as claimed. As discussed above, Steinmetz '260 discloses a FC-AL topology connecting the controller to the shelf routers, and discrete point-to-point serial links between the shelf routers and the data storage devices. Neither the arbitrated loop nor the serial links discloses nor necessarily requires *switchable fabric* as in the present embodiments as claimed. Pignolet '828 is wholly silent regarding the use of a *switchable fabric* as claimed.

The Examiner's claim construction is unreasonably broad because it ignores the plain meaning of *storage controllers with a first port connected to a first switchable fabric and a second port connected to a second switchable fabric, the fabrics, in turn, connected to a plurality of data storage devices* that is consistent with its usage in the specification, thereby effectively ignoring explicitly recited claim language. *In re Morris*

Therefore, the first and second examinations resulting in these rejections are incomplete with regard to the Examiner's obligation to consider the patentability of the invention as claimed. 37 CFR 1.104(a)(1). Also, because the rejection is based on ignoring an explicitly recited feature and mischaracterizing the cited reference, the Examiner does not provide a reason for the rejection that is useful in aiding Applicant to judge the propriety of continuing the prosecution. 37 CFR 1.104(a)(2)

The Examiner has failed to make the requisite prima facie case of anticipation by not substantiating evidence in the record that the cited reference identically discloses all the features recited by the language of claim 54.

Reconsideration and withdrawal of the rejection of claim 54 are respectfully requested.

Conclusion

This is a complete response to the Office Action mailed February 7, 2007.

Applicant has also filed a request for telephone interview in the absence of all pending claims passing to allowance. Applicant regrets the Examiner did not grant the first requested interview, believing that many of the unresolved issues leaving this case not in condition for appeal could have been prevented had the interview been granted. The

telephone interview is necessary now to resolve those issues associated with the unsubstantiated final rejections.

Respectfully submitted,

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